

Work Order ID 85626

June-12-12 10:39:51 AM

ASAP

85626

PRELIMINARY ISSUE

Page 1

Item ID: D4642-043
Revision ID: PRELIM
Item Name: Glareshield Retainer Assembly

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

Start Date: 12/06/2012 Start Qty: 1.00 *1*

Required Date: 26/06/2012 Req'd Qty: 1.00 *1*

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: MJS Date: 12/06/12

Tooling:

Date:

Run Start *NR1*

QC: Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D4642	PA2
-------	-----

100

0.00

100

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per dwg

6061 .063

Prog rev: PA2
Dwg rev: PA2

2-Deburr as required

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

Scrap @ 12/08/22
Trial Set

12-6-12

12-6-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 85626

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Page 2

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Required Date: 26/06/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	- inspected to PAZ Dug only S. Loe 1/13						
130 *130* Brake NC Brake NC	Bend as per dwg Memo C'SINK HOLES AS PER DWG	0.00 0.00							
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	- inspected to PAZ Dug only S. Loe 1/14						

①

IX

S. Loe 12/06/14

S. Loe 2/06/14

POSITIVE RECALL

EFFECTIVE 12/06/12 AUTH W

RELEASED _____ DATE _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 3

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Item ID: D4642-043
Revision ID: PRELIM
Item Name: Glareshield Retainer Assembly

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N900040100

Setup Start ***NS1***

Stop ***NS2***

Start Date: 12/06/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 26/06/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start ***NR1***

QC: Date: SPC (Y/N): Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150 Chemical Conversion Coat per QSI005 4.1 0.00

150

HandFinish

Memo

0.00

Hand Finishing

1 NG 12-6-18

160 QC7-Inspect Chemical Conversion Coat 0.00

160

QC

Memo

0.00

Quality Control

IX / m/f 12/06/18

170 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00

170

Powdercoat

Memo

0.00

Powder Coating

START TIME:
OVEN TEMPERATURE:
FINISH TIME:

1-45
320
2-15

IX / m/f 12/06/18

m121279

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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N900040100

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Revision ID: PRELIM

Stop ***NS2***

Item Name: Glareshield Retainer Assembly

Start Date: 12/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC3- Inspect Part Finish

0.00

180

QC

Memo

0.00

Quality Control

190

0.00

190

Small Fab

Memo

0.00

Small Fab

1- INSTALL PARTS AS PER DWG

200

QC5- Inspect part completeness to step on W/O

0.00

200

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 5

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Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Identify as per dwg & Stock Location: _____	0.00							
250									
Packaging	Memo	0.00							
Packaging									
260	QC21- Final Inspection - Work Order Release	0.00							
260									
QC	Memo	0.00							
Quality Control									

ME
12-08-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

June-12-12 10:39:55 AM

Page 1

Work Order ID: 85626

Parent Item: D4642-043

Parent Item Name: Glaeshield Retainer Assembly

85626

D4642-043

Start Date: 12/06/2012

Required Date: 26/06/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.06.12 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.063		Purchased	No			100	sf	558.7068	0.179	0.188421			

M6061T6S 063

6061-T6 .063 Sheet

B12-6-17

Location	Loc Qty	Loc Code
MAT021	558.7068320	
113608	0	
116308	6.01556842	
117285	67.544	
119331	44.2	
119802	9.94	
120218	19.34	
120866	66.6026316	
121805	345.064632	

120866

82-35-302-15

Purchased

No

190 Each

0.0000

2

2

82-35-302-15

1/4 Turn Receptacle

MS20426AD3-6

Purchased

No

190 Each

4,537.000

4

4

MS20426AD3-6

Rivet

Location	Loc Qty	Loc Code
ST316	4537	
105055	107	
116289	1814	
120123	2616	

12.06.18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -041	QTY -042	P/N	DESCRIPTION	SUPPLIER
	X		D4642-041	GLARESHIELD ASSY	
		X	D4642-042	GLARESHIELD ASSY	
1	1		D4642-1	GLARESHIELD	
2		1	D4642-2	GLARESHIELD	
3	1	1	D4642-5	CHAFE GUARD	
4	2	2	43-13-1-24	EJECTOR SPRING	SOUTHCO
5	2	2	82-15-160-16	1/4 TURN STUD	SOUTHCO
6	2	2	82-32-201-20	RETAINER	SOUTHCO
7	2	2	82-46-101-41	WEAR WASHER	SOUTHCO

2 PL (6 4 7 5)

D4642-041 GLARESHIELD ASSY (SHOWN)
D4642-042 GLARESHIELD ASSY (OPPOSITE)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. ES626 MCT
12/06/12

PRELIMINARY A2
12.06.08

- NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: N/A
7) WEIGHT: 0.58 lbs
8) BOND ITEM 3 IN PLACE USING 3M, 1357 CONTACT CEMENT

RELIEVE IN CORNERS
AS REQUIRED TO PREVENT
MATERIAL DIMPLING
THIS SIDE ONLY

(VIEW LOOKING UP)
(ON BOTTOM OF PART)

PA2	GENERAL REDESIGN, MATERIAL THICKNESS CHANGED	AJS	12.06.08
PA1	PRELIMINARY	AJS	12.05.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. PA2
MFG APPR.		GLARESHIELD	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR		D4642	NTS
DATE	12.06.08	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

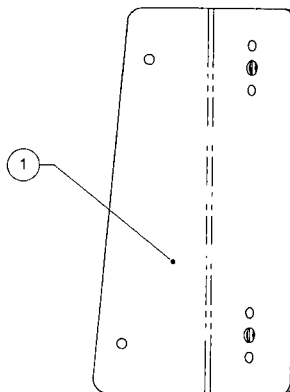
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

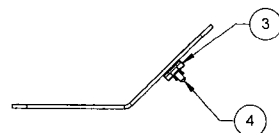
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -043	QTY -044	P/N	DESCRIPTION	SUPPLIER
	X		D4642-043	GLARESHIELD RETAINER ASSY	
		X	D46420-44	GLARESHIELD RETAINER ASSY	
1	1		D4642-3	GLARESHIELD RETAINER	
2		1	D4642-4	GLARESHIELD RETAINER	
3	2	2	82-35-302-15	1/4 TURN RECEPTACLE	SOUTHCO
4	4	4	MS20426AD3-6	RIVET, CSK	



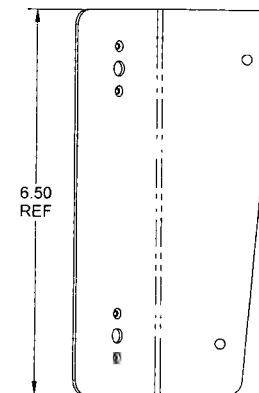
PRELIMINARY A2
12.06.08



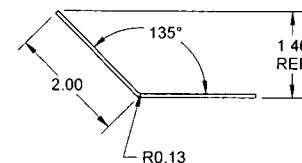
D4642-043 GLARESHIELD RETAINER ASSY (SHOWN)
D4642-044 GLARESHIELD RETAINER ASSY (OPPOSITE)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.15 lbs



25626



D4642-3 GLARESHIELD RETAINER (SHOWN)
D4642-4 GLARESHIELD RETAINER (OPPOSITE)

NOTES:

- 1) MATERIAL: MAKE FROM D4642-3F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3 5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.14 lbs

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO	REV. PA2
MFG. APPR.		GLARESHIELD	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		D4642	NTS
DATE	12.06.08	<small>COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

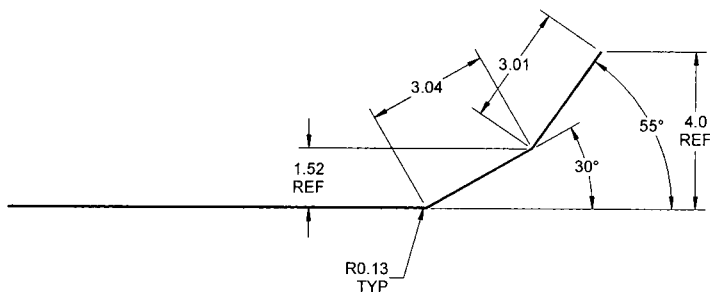
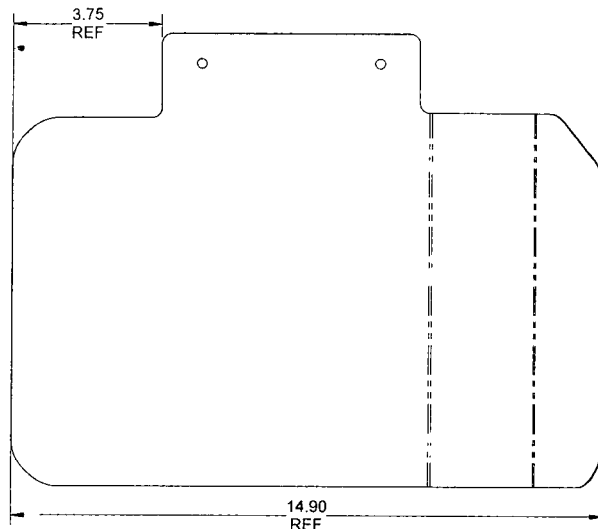
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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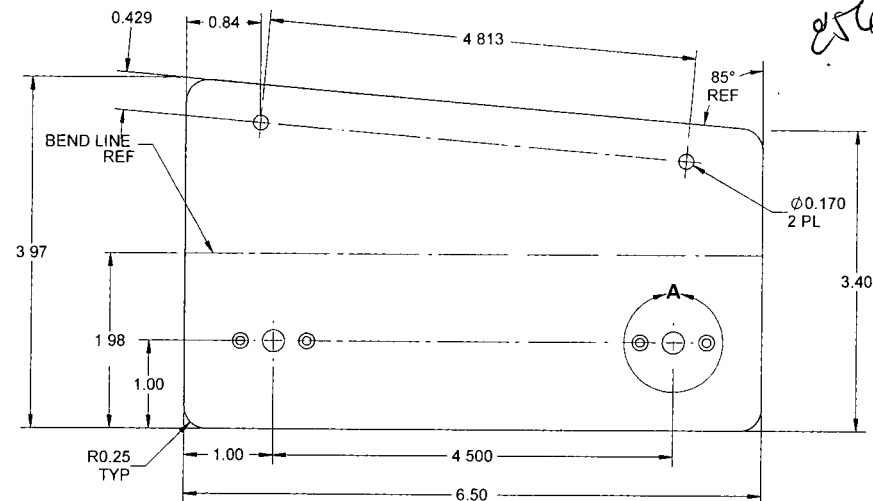
NOTE: Date & initial all entries



D4642-1 GLARESHIELD (SHOWN)
D4642-2 GLARESHIELD (OPPOSITE)

NOTES:

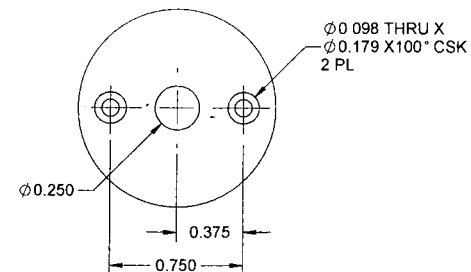
- 1) MATERIAL: MAKE FROM D4642-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.52 lbs



D4642-3F GLARESHIELD RETAINER
(FLAT PATTERN)

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.063 THICK
PER AMS 4025 OR AMS 4027 OR ASTM B209
REF M6061T6S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.14 lbs



DETAIL A
SCALE 2X
2PL

PRELIMINARY A2
 12.06.08

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO	REV. PA2
MFG. APPR.		GLARESHIELD	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR		D4642	NTS
DATE	12.06.08	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

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NOTE: Date & initial all entries

FIRST ARTICLE INSPECTION CHECKLIST

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

FIRST ARTICLE INSPECTION CHECKLIST

Measured by:		Audited by:	8	Preliminary Approval:	
Date:		Date:	12/06/14	Date:	

TO PAA Day only

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	